

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304 (304) 926-0450 fax: (304) 926-0452

Harold D. Ward, Cabinet Secretary www.dep.wv.gov

Monday, April 8, 2024 WELL WORK PERMIT Horizontal 6A / New Drill

EQT PRODUCTION COMPANY 400 WOODCLIFF DR.

CANONSBURG, PA 15317

Permit approval for VANDERBILT 6H Re:

47-049-02536-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304), 926-0450.

Operator's Well Number: VANDERBILT 6H

U.S. WELL NUMBER: 47-049-02536-00-00

Farm Name: LARRY AND TRISHA HIGGIN

Horizontal 6A New Drill

Date Issued: 4/8/2024

Promoting a healthy environment.

API Number: 47-049-02536

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

- This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
- If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
- Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
- Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled Water Well Regulations, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
- Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
- Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Also, 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
- If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
- 10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
- 11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

| API NO. 47 | |
|----------------|---------------------|
| OPERATOR WELL | . NO. ^{6H} |
| Well Pad Name: | Vanderbilt |
| 47049 | 02536 |

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL WORK PERMIT APPLICATION

| 1) Well Operator | EQT Produ | ction Company | 306686 | Marion | Mannington | Glover Gap |
|--|------------------------------------|--|-----------------------|-------------------|----------------------------------|--|
| , | | | Operator ID | County | District | Quadrangle |
| 2) Operator's We | ell Number: 6H | | Well Pad | Name: Vander | bilt | |
| 3) Farm Name/Su | ırface Owner: | Larry & Trisha Higg | gins Public Road | d Access: CR-1 | | |
| 4) Elevation, curr | rent ground: | 1,357' (built) El | evation, proposed j | oost-construction | on: 1,357' (| built) |
| 5) Well Type (| a) Gas X | Oil | Unde | rground Storag | e | |
| (| Other | | | | | |
| (| b)If Gas Sha | ilow X | Deep | <u> </u> | | |
| | | rizontal X | | | | |
| 6) Existing Pad: | | | | <u> </u> | | |
| | get Formation(s 735', 56', 2,62 | | ipated Thickness a | nd Expected Pr | essure(s): RECE Onice of C | Oil and Gas |
| 8) Proposed Tota | l Vertical Dept | h: 7,735' | | <u>.</u> | O | 09 2074 |
| 9) Formation at T | | | | | | |
| 10) Proposed Tot | tal Measured D | epth: 9,880' | | | WV De | epanmen. Of pental Protection |
| 11) Proposed Ho | rizontal Leg Le | ength: 1,432' | | | <u>-</u> | |
| 12) Approximate | Fresh Water S | trata Depths: | 253', 504' | | | |
| 13) Method to De | etermine Fresh | Water Depths: | Offset Wells - 049-01 | 1784, 049-30593 | , 049-30230 |) |
| 14) Approximate | Saltwater Dep | ths: N/A | | | | |
| 15) Approximate | Coal Seam De | pths: 1,181'-1,188 | 3' | | | - · · · · · · · · · · · · · · · · · · · |
| 16) Approximate | Depth to Poss | ible Void (coal mi | ine, karst, other): | N/A | | |
| 17) Does Propose directly overlying | | n contain coal sear an active mine? | ms Yes X | No | | |
| (a) If Yes, prov | ide Mine Info: | Name: Harris | son County Mine | | | |
| | | Depth: 1,181 | '-1,188' | | | |
| | | Seam: Pittsb | urgh | | | |
| | | Owner: Harris | son County Coal Res | sources, Inc. | | |

| WW-6B |
|---------|
| (04/15) |

| API NO. 47 | |
|-------------------|----|
| OPERATOR WELL NO. | 6H |

18)

CASING AND TUBING PROGRAM

| TYPE | Size (in) | New or Used | Grade | Weight per ft. (lb/ft) | FOOTAGE: For Drilling (ft) | INTERVALS: Left in Well (ft) | CEMENT: Fill-up (Cu. Ft.)/CTS |
|--------------|--------------|-------------------|-------|------------------------|-------------------------------|------------------------------------|--------------------------------|
| Conductor | 26 | New | A252 | 85.6 | 53 | 53 | 45 ft^3 / CTS |
| Fresh Water | 13 3/8 | New | J-55 | 54.5 | 1238 | 1238 | 1135 ft^3 / CTS |
| Coal | | | | | | | |
| Intermediate | 9 5/8 | New | J-55 | 36 | 2685 | 2685 | 1035 ft^3 / CTS |
| Production | 6 | New | P-110 | 24 | 9880 | 9880 | 500' above intermediate casing |
| Tubing | | | | | | | |
| Liners | | | | | | | |

| TYPE | Size (in) | Wellbore Diameter (in) | Wall Thickness (in) | Burst Pressure (psi) | Anticipated Max. Internal Pressure (psi) | Cement Type | Cement Yield (cu. ft./k) |
|--------------|-----------|---------------------------|---------------------------|----------------------|--|----------------|--------------------------|
| Conductor | 26 | 30 | 0.312 | 1000 | 18 | Class A/L | 1.04 - 1.20 |
| Fresh Water | 13 3/8 | 17 1/2 | 0.380 | 2730 | 2184 | Class A/L | 1.04 - 1.20 |
| Coal | | | | | | | |
| Intermediate | 9 5/8 | 12 3/8 - 12 1/4 | 0.352 | 3520 | 2816 | Class A/H/L | 1.04 - 1.20 |
| Production | 6 | 8 3/4 - 8 1/2 | 0.400 | 14580 | 11664 | Class A/H/L | 1.04 - 2.10 |
| Tubing | | | | | | | |
| Liners | | | | | | | |

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PACKERS

| Kind: | RECEIVED Office of Oil and Gas |
|-------------|--------------------------------|
| Sizes: | FEB 09 2024 |
| Depths Set: | Wy Department of |

| WW-6B |
|---------|
| (10/14) |

| API NO. 47 |
|---------------------------|
| OPERATOR WELL NO. 6H |
| Well Pad Name: Vanderbilt |
| 4704902536 |

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill and complete a new horizontal well in the Marcellus Formation. Drill the vertical, kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

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my Department of Environmental Protection

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.1%) of chemicals (including 15% Hydrochloric acid, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10,000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 200,000-600,000 pounds of proppant per stage.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 56.80 acres (built)
- 22) Area to be disturbed for well pad only, less access road (acres): 8.44 acres (built)
- 23) Describe centralizer placement for each casing string:
- Surface: Bow spring centralizers One centralizer at the shoe and one spaced every 500'.
- Intermediate: Bow spring centralizers- One centralizer at the shoe and one spaced every 500'.
- Production: One solid body centralizer spaced every other joint from production casing shoe to landing point. One solid body centralizer spaced every joint from landing point to planned top of cement.

24) Describe all cement additives associated with each cement type:

Conductor: Class A no additives

Surface: Calcium Chloride. Used to speed the setting of cement slurries

Intermediate: Calcium Chloride. Used to speed the setting of cement slurries. If applicable: Gas Migration Control Additive, Cement Retarder

Production: Calcium Carbonate, Fluid Loss, Extender, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder,

Anti-Settling/Suspension Agent

25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.

Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.

Production: Perform a cleanup cycle by pumping 3-8 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

^{*}Note: Attach additional sheets as needed.



4704902536

February 1, 2024

Mr. Taylor Brewer West Virginia Department of Environmental Protection Office of Oil and Gas 601 57th Street SE Charleston, WV 25304

Re:

Class L Cement Variance Request

Vanderbilt 6H Well

Mannington District, Marion County

Dear Mr. Brewer,

EQT Production Company (EQT) has been notified by our cement providers that they will no longer be providing Class A cement. As a result of this, EQT is requesting the option to utilize Class L cement, if necessary, in place of Class A cement for its cement jobs.

The variance request from Legislative Rule 35CSR8, Section 9.2.h.8, related to the use of Class L Cement, was approved by the Office of Oil and Gas on September 13, 2022. A copy of the variance is included with this request.

If you have any questions, please do not hesitate to contact me at 724-746-9073.

Sincerely,

Enc.

John Zavatchan

Project Specialist - Permitting

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WV Department of Environmental Protection

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EQT Production

Hydraulic Fracturing Monitoring Plan

Pad ID: Vanderbilt

County: Marion

WV Department in Environmental Protection

February 5, 2024

Office of Oil Land

Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notif**F**EB **0 9** 2024 conventional well operators near EQT hydraulic fracturing in Marion County, WV prior to hydraulic fracturing at the following EQT wells on the Vanderbilt pad: 2H, 4H, 6H, 8H and 10H.

WV Departs Environmental Processing

Due to the requirements under 35CSR8 5.11, the permittee is required to review the area surrounding the proposed well pad so as to identify and evaluate potential conduits for unintended fracture propagation.

A report is required to be submitted along with a well work permit application.

The plan is being implemented as an additional safety measure to be utilized in conjunction with existing best management practices and emergency action plans for the site. These additional measures include coordination with well operators of the timing and location of the hydraulic fracturing, establishment of measures well operators should implement, and assurance that the OOG is notified of the timeline, as well as any issues that may arise during fracturing.

1. Communications with Well Operators

EQT, using available data (WV Geological Survey, WVDEP website, and IHS data service), has identified all known wells and well operators within 500 feet of this pad and the lateral sections that are known or could reasonably be expected to be within range of the fracture propagation. A map showing these wells along with a list of the wells and operators is included in **Attachment A**.

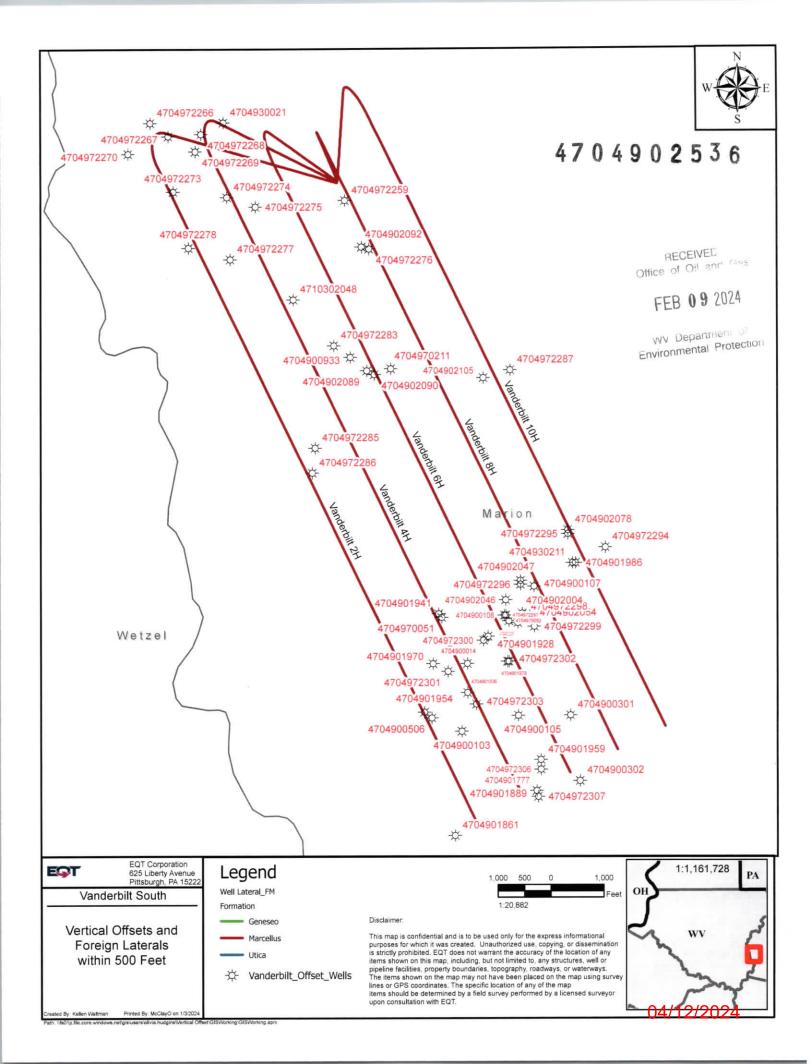
EQT will notify these operators of the hydraulic fracturing schedule for these wells, and coordinate with them throughout the fracturing process.

EQT will recommend to these operators at a minimum to:

- 1. Inspect their surface equipment prior to fracturing to establish integrity and establish prefrac well conditions
- 2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas or pressure
- 3. Inspect or install master valves or other necessary equipment for wellhead integrity capable of a pressure recommended by EQT
- 4. Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified

Reporting

EQT will provide information relating to the hydraulic fracturing schedule, communication with other operators, and ongoing monitoring of the work upon request of OOG or immediately in the event of any noted abnormalities.



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|--------|----------|------------|----------|-----------|--------|---------|

Office of Oil and Gas 601 57th Street, SE Charleston, WV 25304 Phone (304) 926-0450 Harold D. Ward, Cabinet Secretary dep.wv.gov

BEFORE THE OFFICE OF OIL AND GAS DEPARTMENT OF ENVIRONMENTAL PROTECTION STATE OF WEST VIRGINIA

| IN THE MATTER OF A VARIANCE FROM LEGISLATIVE RULE 35CSR4 SECTION 11.5 AND LEGISLATIVE RULE 35CSR8 SECTION 9.2.h.8., |) ORDER N | NO. 2022-14 |
|--|-----------|---|
| RELATING TO THE CEMENTING OF OIL AND GAS WELLS |)) | RECEIVED Office of Oil and Gas |
| REPORT OF TH | E OFFICE | FEB 0 9 2024 (W), Department of Environmental Protection |

REPORT OF THE OFFICE

In response to industry requests, the West Virginia Department of Environmental Protection, Office of Oil and Gas has reviewed the proposed use of American Petroleum Institute (API) Class L cement to be used in place of API Class A cement for well construction.

FINDINGS OF FACT

- 1. On July 14, 2022, Northeast Natural Energy (NNE) submitted a variance request from Legislative Rule 35CSR8 Section 9.2.h.8., for the use of API Class L cement in place of API Class A cement, relating to the construction of horizontal wells.
- 2. Laboratory analysis submitted by NNE on July 14, 2022, indicates API Class L cement is comparable to API Class A cement and thereby satisfies the requirements of the West Virginia Code.
- 3. Contemporaneously, the Chief of the Office of Oil and Gas also chose to consider a variance to Legislative Rule 35CSR4 Section 11.5., for the use of API Class L cement in place of API Class A cement, relating to the construction of vertical wells.

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 On August 18, 2022, the Office of Oil and Gas provided public notice of acceptance of public comments on the variance consideration. During the 20-day public comment period, no comments were received.

CONCLUSIONS OF LAW

Pursuant to Article 6 and Article 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to Legislative Rule 35CSR4, Section 18 and Legislative Rule 35CSR8, Section 14, the Chief of the Office of Oil and Gas may grant a variance from any requirement of these rules.

ORDER

It is ordered that the Class L cement product approved and monogramed by API is approved for use in place of API Class A cement for well construction subject to the provisions of Legislative Rule 35CSR4 and Legislative Rule 35CSR8.

Dated this, the 13th day of September, 2022.

IN THE NAME OF THE STATE OF WEST VIRGINIA

OFFICE OF OIL AND GAS DEPARTMENT OF ENVIRONMENTAL PROTECTION OF THE STATE OF WEST VIRGINIA

James Martin, Chief Office of Oil and Gas RECEIVED
Office of Oil and Gas

FEB 09 2024

WV Department of Environmental Protection



EQT PRODUCTION COMPANY
400 Woodcliff Drive | Canonsburg, PA 15317
P: 724-746-9073 | www.eqt.com

4704902536

February 1, 2024

Mr. Taylor Brewer West Virginia Department of Environmental Protection Office of Oil and Gas 601 57th Street SE Charleston, WV 25304

Re: Casing on Vanderbilt 6H

Dear Mr. Brewer,

The 13-3/8" surface casing will be set at 1,238' KB, 50' below the deepest workable coal seam and 734' below the deepest fresh water. The 9-5/8" intermediate string will be set at 2,685' KB, 50' below the base of the Big Injun formation.

If you have any questions, please do not hesitate to contact me at 724-746-9073.

Sincerely,

John Zavatchan

Project Specialist - Permitting

Enc.

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Office of Oil and Gas

FEB 09 2024

WV Department of Environmental Protection

WEST VIRGINIA GEOLOGICAL PROGNOSIS

VANDERBILT

API

S-001217

Drilling Objectives:

Marcellus

County: Quad:

Marion

Elevation:

Glover Gap

Recommended Azimuth

1368 KB 153 Degrees 1355 GL

Recommended LP to TD: #REF!

Top RR Base RR No red rock listed in offsets

ESTIMATED FORMATION TOPS

Based on GLO76 Pilot hole 4704902329

| BOTTIMITED TOTAL | .50.544 | | |
|------------------|-----------|--------------------------|---|
| Formation | Top (TVD) | Base (TVD) Lithology | Comments |
| Fresh Water Zone | 1 | 504 | FW @ 253,504, , |
| Pittsburgh Coal | 1181 | 1188 Coal | Solid coal within an active mining boundary |
| Big Lime | 2458 | 2527 Limestone | SW @ |
| Big Injun | 2527 | 2635 Sandstone | Gas / Oil |
| Int. csg pt | 2685 | | |
| Gantz | 3122 | 3210 Sandstone | Gas / Oil |
| 50F | 3210 | 3445 Silty Sand | Storage? |
| Fifth Sand | 3445 | 3492 Silty Sand | |
| Bayard | 3492 | 5937 Silty Sand | Base of Offset Well Perforations at 3268' TVD |
| Alexander | 5937 | 6363 Silty Sand | |
| Elks | 6363 | 7240 Gray Shales and Si | lts |
| Sonyea | 7240 | 7401 Gray shale | |
| Middlesex | 7401 | 7455 Shale | |
| Genesee | 7455 | 7547 Gray shale interbed | lded |
| Geneseo | 7547 | 7579 Black Shale | |
| Tully | 7579 | 7606 Limestone | |
| Hamilton | 7606 | 7707 Gray shale with sor | me |
| Marcellus | 7707 | 7763 Black Shale | |
| Purcell | 7726 | 7728 Limestone | |
| -Lateral Zone | 7735 | | Start Lateral at 7735' |
| Cherry Valley | 7742 | 7744 Limestone | |
| Onondaga | 7763 | Limestone | |
| 5.0 | | | Pilot hole not needed on this well |

Target Thickness 56 feet

Comments:

Intermediate casing point is recommended beneath the Big Injun to shut off any water production from the Upper Devonian sands. Intermediate casing should be cemented into the surface string, per WV regulations.

RECOMMENDED CASING POINTS

| Fresh Water/Coal | CSG OD | 13 3/8 | |
|------------------|--------|--------|--|
| Intermediate 1: | CSG OD | 9 5/8 | |
| Production: | CSG OD | 5 1/2 | |

| CSG | DEPTH: |
|-----|--------|
| CSG | DEPTH: |

CSG DEPTH: @ TD 1238 2685

Beneath theBig Injun formandn

9

9

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Wellbore Diagram **EQT Production** County: Marion Vanderbilt 6H Well: West Virginia State: Pad: Vanderbilt Elevation: 1355' GL 1368' KB 4704902536 Conductor @ 53' 26", 85.6#, A252, cement to surface w/ Class A/L Surface @ 1,238' 13-3/8", 54.5#, J-55, cement to surface w/ Class A/L RECEIVED Office of Oil and Gas FEB 09 2024 WV Department of Environmental Protection Intermediate @ 2,685' 9-5/8", 36#, J-55, cement to surface w/ Class A/H/L 9,880' MD / 7,735' TVD Production @ 6", 24#, P-110, cement to 500' inside 9-5/8" w/ Class A/H/L Formation: Marcellus 04/01272094ALE

| 4 | 7 | 0 | 4 | 9 | 0 | 2 | 5 | 3 | 6 |
|---|---|-----|---|---|---|------|---|---|------|
| - | | *27 | | ~ | ~ | Been | • | _ | - 04 |

Member, Pennsylvania Association of Notaries

| API Number 47 - | |
|-----------------|-------------------|
| Operator's Well | No. Vanderbilt 6H |

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

| FLUIDS/ CUTTINGS DISPOSA | L & RECLAMATION PLAN |
|---|--|
| Operator Name EQT Production Company | OP Code _306686 |
| Watershed (HUC 10)_Evans Run & Buffalo Creek | Quadrangle Glover Gap |
| Do you anticipate using more than 5,000 bbls of water to complete | he proposed well work? Yes 🗸 No |
| Will a pit be used? Yes No | |
| If so, please describe anticipated pit waste: N/A | |
| Will a synthetic liner be used in the pit? Yes No | If so, what ml.? N/A |
| Proposed Disposal Method For Treated Pit Wastes: | |
| Land Application Underground Injection (UIC Permit Number Various ■ Reuse (at API Number Various ■ Off Site Disposal (Supply form WW-9 form CExplain VW-9 form VW-9 f | or disposal location) |
| V. Thouland have | |
| Will closed loop system be used? If so, describe: Yes, the closed loop then prepared for trans | system will remove drill cuttings from the drilling fluid. The drill cuttings are sportation to an off-site disposal facility. |
| Drilling medium anticipated for this well (vertical and horizontal)? | Air, freshwater, oil based, etc. See Attached |
| -If oil based, what type? Synthetic, petroleum, etc. Synthetic | ic Mud |
| Additives to be used in drilling medium? See Attached | |
| Drill cuttings disposal method? Leave in pit, landfill, removed offs | te, etcLandfill |
| -If left in pit and plan to solidify what medium will be used | ? (cement, lime, sawdust)_N/A |
| -Landfill or offsite name/permit number? See Attached List | |
| Permittee shall provide written notice to the Office of Oil and Gas of West Virginia solid waste facility. The notice shall be provided with where it was properly disposed. | |
| on August 1, 2005, by the Office of Oil and Gas of the West Virgini provisions of the permit are enforceable by law. Violations of any law or regulation can lead to enforcement action. | mined and am familiar with the information submitted on this my inquiry of those individuals immediately responsible for accurate, and complete. I am aware that there are significant |
| Company Official Title Project Specialist - Permitting | WV Department of |
| | Environmental Protection |
| Subscribed and sworn before me this day of | Seb. , 20 24 |
| | Notary Public Commonwealth of Pennsylvania - Notary Seal |
| My commission expires OCH, 25, 2627 | Olivia Wilson, Notary Public Allegheny County My commis@1/2/25/25/2027 Commission number 1359968 |

WW-9 Attachment

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.

 Air is used to drill the top-hole sections of the wellbore (surface, intermediate, and pilot). Water based mud or synthetic based mud may be necessary depending on hole conditions to stabilize and drill the intermediate section. The pilot hole, curve, and lateral sections will be drilled with either air, water-based mud, or synthetic mud.

Additives to be used in drilling medium?

- Air biodegradable oil lubricant, detergent, defoaming, water.
- Water based mud Barite, viscosifer, alkalinity control, lime, filtration control, deflocculates, biodegradable oil lubricant, defoaming, walnut shell, salt, x-cide, carbonates.
- Synthetic mud synthetic base oil, emulsifier, salt, lime, viscosifer, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.

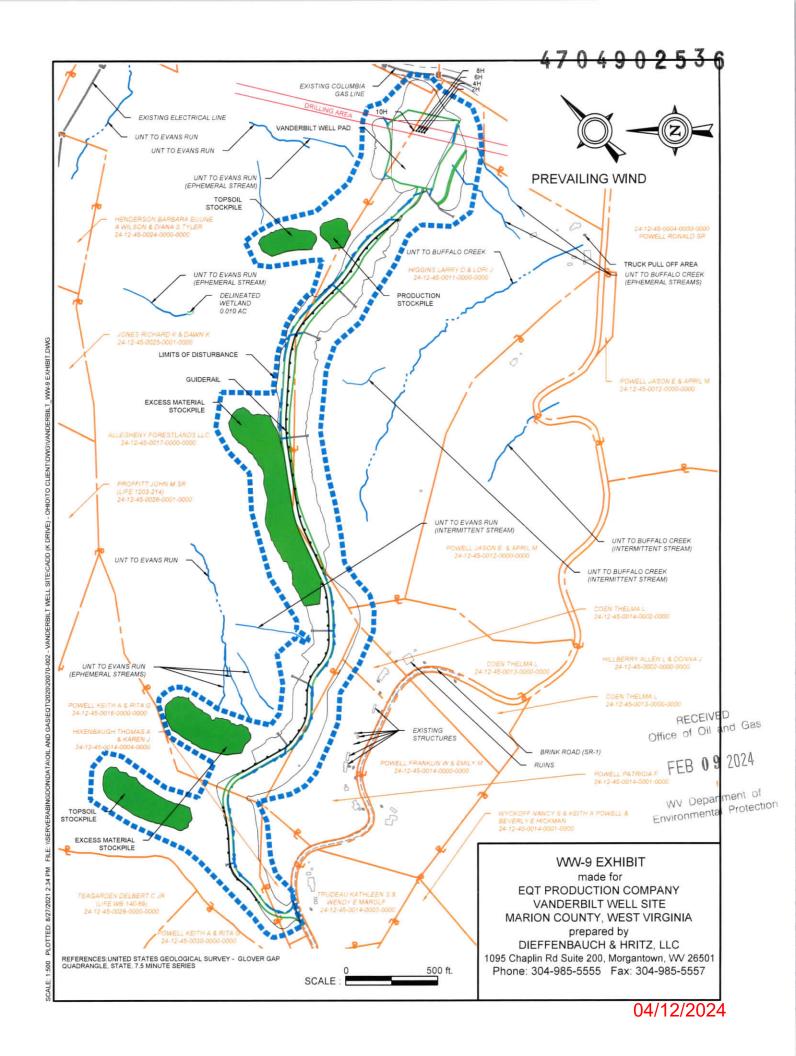
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WV Department of Environmental Protection

Operator's Well No. Vanderbilt 6H

| 6.5 s/acre cre Mixtures Perma | nent |
|-------------------------------|--|
| Mixtures | nent |
| Mixtures | nent |
| Mixtures | nent |
| | nent |
| Perma | nent |
| | iieiit |
| Seed Type | lbs/acre |
| Orchard Grass | 15 |
| Alsike Clover | 5 |
| | |
| eas as soon as reasona | |
| ary per WV DEP E&S | Manual. |
| | |
| | HECF Office of (|
| | Office of (|
| | |
| | FEB |
| | |
| 2 | Alsike Clover ation (unless engineered plans include mensions (L x W x D) of the pit, and |





SITE SAFETY AND ENVIRONMENTAL PLAN

Vanderbilt Well Pad

Mannington
Marion County, WV

Wells - Vanderbilt 2H, 4H, 6H, 8H, 10H

Prepared By: <u>Donny Prater, CSP, Health and Safety Sciences, LLC</u> Approved By: <u>Scott M. Held, Senior Safety Coordinator</u>

Created Date: 23-Jun-21

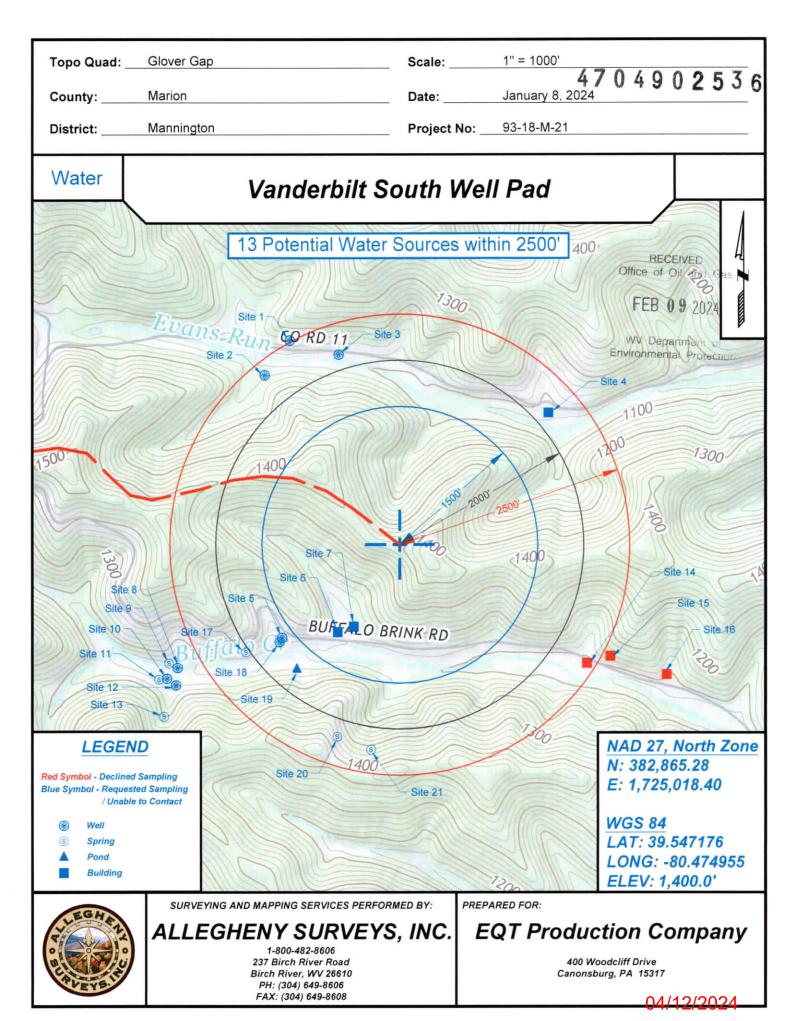
John Zavatchan
Project Specialist - Permitting
EQT Production Company

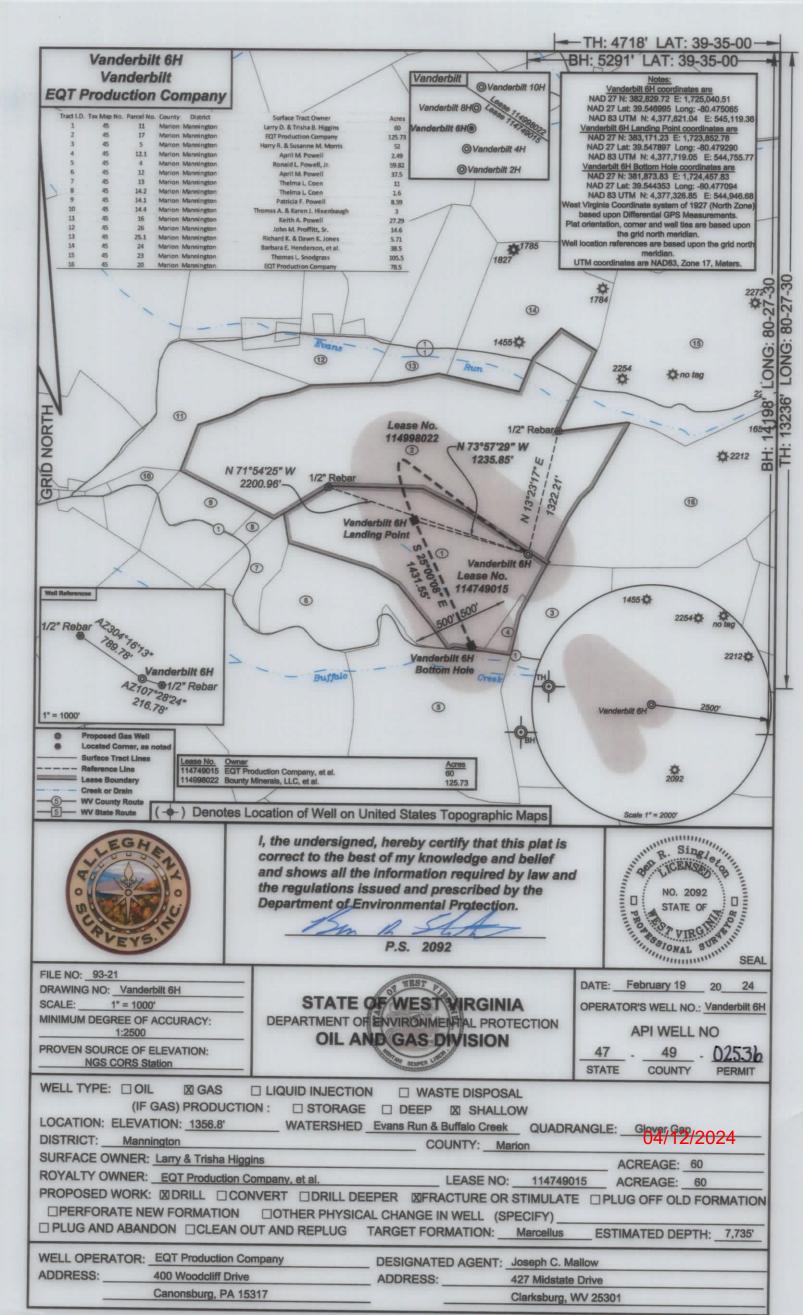
Ken/Willett

Oil and Gas Inspector

WVDEP Office of Oil and Gas

| Revision # | <u>Date</u> | Change/s |
|--|-------------|--|
| 1 | 1/10/2020 | Plan total revision and reformat. |
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| | | |
| n Administrator: | | Approver: |
| ott M. Held, CSP nior Safety Coordina | ster | Michael Lauderbaugh Vice President of EHS |





WW-6A1 (5/13)

Operator's Well No. Vanderbilt 6H

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

| Lease Name or | | | | |
|---------------|-----------------------|-----------------------|---------|-----------|
| Number | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Book/Page |

See Attachment

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Office of Oil and Gas

FEB **09** 2024

WV Department of Environmental Protection

Acknowledgement of Possible Permitting/Approval In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- · County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: EQT Production Company

By: John Zavatchan

Its: Project Specialist - Permitting

Page 1 of 2

| Lease No. | Grantor, Lessor, etc. | Acres | Grantee, Lessee, etc. | Royalty | Book/Page |
|------------------|--|-----------|------------------------------|--|-------------|
| <u>114749015</u> | EQT Production Company, et al. | | | "at least 1/8th per WV Code 22-6-8" | |
| | Ascent Resources Marcellus Minerals, LLC | 60 ac | EQT Production Company | | DB 1204/61 |
| | December Minimum In 11 October 1 | | | "at least 1/8th per | |
| <u>114998022</u> | Bounty Minerals, LLC, et al. | | | WV Code 22-6-8" | |
| | Bounty Minerals, LLC | 125.73 ac | Antero Resources Corporation | | DB 1223/161 |
| | Antero Resources Corporation | | EQT Production Company | | AB 56/332 |

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W Departition of the control of the c



EQT PRODUCTION COMPANY 400 Woodcliff Drive | Canonsburg, PA 15317

February 1, 2024

Mr. Taylor Brewer West Virginia Department of Environmental Protection Office of Oil and Gas 601 57th Street SE Charleston, WV 25304

Re:

Vanderbilt 6H Gas Well

Mannington District, Marion County, WV

Dear Mr. Brewer,

EQT Production Company is applying for a new well work permit for the well referenced above. Upon information and belief, the Operator's lease and/ or other real property rights permit it to conduct drilling operations for the subject well in the location shown on the plat, including under any public roads that the well lateral crosses.

Sincerely,

John Zavatchan

Project Specialist - Permitting

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Office of Oil and Gas

FEB 09 2024

WV Department of Environmental Protection

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE CERTIFICATION

| Date of Notic | ce Certification: U2/22/2024 | A | API No. 47 | ' | | |
|--|--|--|--|--|--|--|
| | | (| Operator's Well No. 6H | | | |
| | | • | Well Pad N | lame: Vanderb | ilt | |
| Notice has b | oeen given: | | | | | |
| | e provisions in West Virginia Code § | 22-6A, the Operator has provi | ded the req | uired parties w | ith the Notice Forms listed | |
| below for the | tract of land as follows: | • | , | | | |
| State: | West Virginia | LITTA NIAD 92 | Easting: | 545119.355 | | |
| County: | Marion | UTM NAD 83 | Northing: | 4377621.039 | | |
| District: | Mannington | Public Road Acces | ss: | CR-1 | | |
| Quadrangle: | Glover Gap | Generally used far | m name: | Vanderbilt (Larry & Tris | sha Higgins) | |
| Watershed: | Evans Run & Buffalo Creek | <u> </u> | | | | |
| it has provide information re of giving the requirements Virginia Code | the secretary, shall be verified and shed the owners of the surface describe equired by subsections (b) and (c), securface owner notice of entry to surface owner notice of entry to surface of subsection (b), section sixteen of e § 22-6A-11(b), the applicant shall the have been completed by the applicant | ped in subdivisions (1), (2) and ction sixteen of this article; (ii) rivey pursuant to subsection (a fighth this article were waived in vender proof of and certify to the | d (4), substhat the reconstruction to the contraction of the contracti | ection (b), sec quirement was en of this artic the surface ow | etion ten of this article, the deemed satisfied as a result cle six-a; or (iii) the notice vner; and Pursuant to West | |
| that the Oper | West Virginia Code § 22-6A, the Operator has properly served the required | | s Notice C | ertification | OOG OFFICE USE | |
| *PLEASE CHE | ECK ALL THAT APPLY | | | | ONLY | |
| ☐ 1. NOT | TICE OF SEISMIC ACTIVITY or | ■ NOTICE NOT REQUIRE SEISMIC ACTIVITY WAS | | | □ RECEIVED/ NOT REQUIRED | |
| ☐ 2. NO | TICE OF ENTRY FOR PLAT SURV | EY or 🔳 NO PLAT SURVE | Y WAS CO | ONDUCTED | □ RECEIVED | |
| ■ 3. NO | TICE OF INTENT TO DRILL or | ☐ NOTICE NOT REQUIRE NOTICE OF ENTRY FOR PEWAS CONDUCTED or | | | RECEIVED/ NOT REQUIRED | |
| | | ☐ WRITTEN WAIVER BY (PLEASE ATTACH) | (ED | | | |
| ■ 4. NO | TICE OF PLANNED OPERATION | Office of | CEIVED Oil and G | ias | RECEIVED | |
| ■ 5. PUB | BLIC NOTICE | | 0 9 202 | | RECEIVED | |
| ■ 6. NO | TICE OF APPLICATION | ,M) EnvirON | Jepannier mentai Pro | ა (ც ნიპ ^ე | RECEIVED | |

Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

Certification of Notice is hereby given:

THEREFORE, I John Zavatchan , have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. Well Operator: EQT Production Company Address: 400 Woodcliff Drive By: John Zavatchan Canonsburg, PA 15317 Its: Project Specialist - Permitting Facsimile: 412-395-2974 Telephone: 724-746-9073 Email: jzavatchan@eqt.com Subscribed and sworn before me this 22 day of NOTARY SEAL Commonwealth of Pennsylvania - Notary Seal Olivia Wilson, Notary Public Allegheny County My commission expires October 25, 2027 Commission number 1359968 My Commission Expires Member, Pennsylvania Association of Notaries

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

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Office of Oil and Gas

FEB **09** 2024

(VV Department of Environmental Protection WW-6A (9-13)

| API NO. 47 | |
|---------------------|---------|
| OPERATOR WELL | NO. 6H |
| Well Pad Name: _Van | derbilt |

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION

| Not | ice Time Requirem | ent: notice shall be provi | ded no later th | an the filing date of permit application. | |
|--|---|--|--|---|--|
| | e of Notice: 2/21/2024 ice of: | _ Date Permit Applica | tion Filed: 2/22 | 72024 | |
| V | PERMIT FOR AN WELL WORK | _ : :::::: | | PROVAL FOR THE AN IMPOUNDMENT OR PIT | |
| Deli | very method pursu | ant to West Virginia Co | ode § 22-6A-1 | 0(b) | |
| | PERSONAL SERVICE | REGISTERED MAIL | | OD OF DELIVERY THAT REQUIRES A | |
| regis sedin the soil a desc oper more well impo have prov prop subs reco prov Code | stered mail or by any ment control plan requirace of the tract on and gas leasehold being ribed in the erosion a ator or lessee, in the electron control seams; (4) The work, if the surface to build matter well, spring ide water well, spring ide water for consum osed well work activities of the sheriff requision of this article to the R. § 35-8-5.7.a req | method of delivery that required by section seven of the which the well is or is programed by the proposed developed by the proposed developed by the proposed sediment control plants are event the tract of land on which wowners of record of the surfact is to be used for the process of the section in the proposed in section nine of the control of the section by humans or domestity is to take place. (c)(1) It ion hold interests in the land interest of the control of th | quires a receipt his article, and posed to be loc sed well work, i ubmitted pursu which the well purface tract or tracted lacement, constantial article; (5) and attended within one stic animals; and f more than through the applica- tion and the application and the application and the applica- tion and the application and the a | or signature confirmation, copies of the application, the well plat to each of the following persons: (1) The tated; (2) The owners of record of the surface tract or of the surface tract is to be used for roads or other land ant to subsection (c), section seven of this article; (3) proposed to be drilled is located [sic] is known to be unacts overlying the oil and gas leasehold being development, enlargement, alteration, repair, removal or at Any surface owner or water purveyor who is known to thousand five hundred feet of the center of the well plated (6) The operator of any natural gas storage field wit the tenants in common or other co-owners of interests and may serve the documents required upon the person eight, article one, chapter eleven-a of this code. (2) Not notice to a landowner, unless the lien holder is the laptovide the Well Site Safety Plan ("WSSP") to the surface as provided in section 15 of this rule. | the erosion and e owners of record of tracts overlying the d disturbance as The coal owner, underlain by one or ped by the proposed candonment of any o the applicant to pad which is used to hin which the described in described in the iotwithstanding any andowner. W. Va. rface owner and any |
| ☑ SU Nam | URFACE OWNER(s | | S Plan Notice | © Well Plat Notice is hereby provided to: ☐ COAL OWNER OR LESSEE Name: See Attached List Address: | RECEIVED Office of Oil and Gas - FEB 09 2024 |
| Nan Add | ne: | | _ | ☑ COAL OPERATOR Name: See Attached List Address: | WV Departition Environmental Protection |
| Nam Add Nam | ress: | s) (Road and/or Other Dis | , - - | SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s) Name: See Attached List Address: | _ |
| Add SU Nam | ress: JRFACE OWNER(s ae: | s) (Impoundments or Pits | - - - | OPERATOR OF ANY NATURAL GAS STO Name: Address: | RAGE FIELD |
| | | | _ | *Please attach additional forms if necessary | |

WW-6A (8-13)

4704902536

API NO. 47OPERATOR WELL NO. 6H
Well Pad Name: Vanderbilt

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Office of Oil and Gas

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

WW-6A (8-13)

API NO. 47 0 4 9 0 2 5 3 6

OPERATOR WELL NO. 6H

Well Pad Name: Vanderbilt

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

FEB 09 2024

WV Departments
Environmental profession
f persons qualified to

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

4704902536

WW-6A (8-13)

| API NO. 47- | |
|--------------------------|------|
| OPERATOR WELL NO | . 6H |
| Well Pad Name: Vanderbii | lt |

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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W/V Departure Protection

WW-6A (8-13) API NO. 47-____OPERATOR WELL NO. 6H
Well Pad Name: Vanderbilt

4704902536

Notice is hereby given by:

Well Operator: EQT Production Company
Telephone: 724-746-9073

Email: jzavatchan@eqt.com

Address: 400 Woodcliff Drive

Canonsburg, PA 15317

Facsimile: 412-395-2974

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deepprivacyofficer@wv.gov.

Commonwealth of Pennsylvania - Notary Seal Olivia Wilson, Notary Public Allegheny County My commission expires October 25, 2027 Commission number 1359968

Member, Pennsylvania Association of Notaries

Subscribed and sworn before me this 22 day of Leb, 2024.

____ Notary Public

My Commission Expires_

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WV Department of Environmental Protection

Vanderbilt

Surface Owners (All Disturbance):

- Thomas A. Hixenbaugh and Karen J. Hixenbaugh P.O. Box 77 Barrackville, WV 26559
- Keith Powell 3898 Buffalo Brink Road Mannington, WV 26582
- Patricia F. Powell
 3790 Buffalo Brink Road
 Mannington, WV 26582
- Thelma Coen
 3734 Buffalo Brink Road
 Mannington, WV 26582
- Larry and Trisha Higgins 3418 Buffalo Brink Road Mannington, WV 26582
- EQT Production Company 400 Woodcliff Drive Canonsburg, PA 15317

Water Supply Owners within 1,500':

 Larry and Trisha Higgins 3418 Buffalo Brink Road Mannington, WV 26582

Coal Owners:

- MINCO I, Inc.
 c/o The Prentice-Hall Corporation System, Inc.
 251 Little Falls Drive
 Wilmington, DE 19808
- Larry and Trisha Higgins 3418 Buffalo Brink Road Mannington, WV 26582
- Susan Powell Wyckoff PO Box 751 Granville, WV 26534

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Office of Oil and Gas

FEB **09** 2024

Wiv Department c Environmental Protection

- Jennifer Lynn Huey
 1111 Ridgewood Road
 Fairmont, WV 26554
- Jefry Louis Huey
 6434 Kenhowe Drive
 Bethesda, MD 20817-5446

Coal Lessee:

 Consolidation Coal Company 46226 National Road West St. Clairsville, OH 43950

Coal Operator:

 Harrison County Coal Resources, Inc. Attn: Steve Bair
 46226 National Road West
 St. Clairsville, OH 43950

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Office of Oil and Gas

FEB **09** 2024

WV Department of Environmental Protection

Scale: 1" = 1000' 4704902536 Topo Quad: Glover Gap Date: ____ January 8, 2024 County: Marion Project No: 93-18-M-21 Mannington District: Water Vanderbilt South Well Pad 13 Potential Water Sources within 2500' 400 Evans Run 60 RD 11 Site 4 RECEIVED 1100 office of Oil and Gai EEB 10.9 2024 1:400 WV Department of 2000 Environmental Protection Site 7 1400 Site 14 Site 6 Site 5 Site 15 Site 9 BURTALO BRINK RD Site 10 Site 16 Site 17 Site 11-Site 18 Site 12 Site 19 Site 13 NAD 27, North Zone LEGEND N: 382,865.28 Site 20 Red Symbol - Declined Sampling E: 1,725,018.40 Blue Symbol - Requested Sampling Site 21 / Unable to Contact WGS 84 Well Spring LAT: 39.547176 LONG: -80.474955 Building ELEV: 1,400.0' SURVEYING AND MAPPING SERVICES PERFORMED BY: PREPARED FOR: **EQT Production Company** ALLEGHENY SURVEYS, INC. 1-800-482-8606 237 Birch River Road 400 Woodcliff Drive Birch River, WV 26610 Canonsburg, PA 15317 PH: (304) 649-8606 FAX: (304) 649-8608

WW-6A4 (1/12)

4704902536

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

| Notice Time I Date of Notice | Requirement: Notice shall be provided at le: 01/09/2024 Date Pern | least TEN (10) days prior to filing a nit Application Filed: 02/22/2024 | permit application. | | |
|---|--|---|---|--|--|
| Delivery meth | nod pursuant to West Virginia Code § 22 | 2-6A-16(b) | | | |
| □ HAND DELIVE | CERTIFIED MAIL RY RETURN RECEIPT REQUESTED | | | | |
| receipt request drilling a horiz of this subsect subsection ma | Va. Code § 22-6A-16(b), at least ten daysted or hand delivery, give the surface owner zontal well: <i>Provided</i> , That notice given prion as of the date the notice was provided by be waived in writing by the surface owner, facsimile number and electronic mail addreby provided to the SURFACE OW | er notice of its intent to enter upon the pursuant to subsection (a), section to the surface owner: <i>Provided, hower.</i> The notice, if required, shall incl | ne surface owner's land for the purpose of n of this article satisfies the requirements ovever. That the notice requirements of this ude the name, address, telephone number, or's authorized representative. | | |
| Notice is her | reby provided to the SURFACE OW | NER(s): | Office of 9 2024 | | |
| Name: See Attac Address: | chment | Name: Address: | CEB 03 C | | |
| Notice is her Pursuant to W | reby given: Yest Virginia Code § 22-6A-16(b), notice is the rer's land for the purpose of drilling a hore west Virginia | s hereby given that the undersigned izontal well on the tract of land as for | well operator has an intent to enter upon | | |
| County: | Marion | UTM NAD 83 Lasting. | 4377621.04 | | |
| District: | Mannington | Public Road Access: | CR-1 | | |
| Quadrangle: | Glover Gap | Generally used farm name: | Vanderbilt | | |
| Watershed: | Evans Run & Buffalo Creek | _ | | | |
| Pursuant to W facsimile num related to hori | Shall Include: West Virginia Code § 22-6A-16(b), this rather and electronic mail address of the option of the option of the standard from | perator and the operator's authorized Secretary, at the WV Department of | ed representative. Additional information f Environmental Protection headquarters, | | |
| Notice is her | reby given by: | | | | |
| | EQT Production Company | Authorized Representative: | John Zavatchan | | |
| Address: | 400 Woodcliff Drive | Address: | 400 Woodcliff Drive | | |
| | Canonsburg, PA 15317 | | Canonsburg, PA 15317 | | |
| Telephone: | 412-584-3132 | Telephone: | 412-584-3132 | | |
| Email: | JZavatchan@eqt.com | Email: | JZavatchan@eqt.com | | |
| Facsimile: | 412-395-2974 | Facsimile: | 412-395-2974 | | |
| | | | | | |

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deepprivacyofficer@wv.gov.

Vanderbilt

Surface Owners (All Disturbance):

- Thomas A. Hixenbaugh and Karen J. Hixenbaugh P.O. Box 77 Barrackville, WV 26559
- Keith Powell 3898 Buffalo Brink Road Mannington, WV 26582
- Patricia F. Powell
 3790 Buffalo Brink Road
 Mannington, WV 26582
- Thelma Coen
 3734 Buffalo Brink Road
 Mannington, WV 26582
- Larry and Trisha Higgins * 3418 Buffalo Brink Road Mannington, WV 26582
- EQT Production Company 400 Woodcliff Drive Canonsburg, PA 15317

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FEB 09 2024

WV Department :: Environmenta: Protection

^{*}An additional 6A4 form was sent to Larry and Trisha Higgins with the 6A and 6A5 notification. The address was the same.

WW-6A5 (1/12) Operator Well No. Vanderbilt 6H

STATE OF WEST VIRGINIA 47 0 4 9 0 2 5 3 6 DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE OF PLANNED OPERATION

| Notice Time Date of Noti | Requirement: notice shall b | | er than the filing cation Filed: 02/22 | | application. | |
|--|---|---|--|--|---|-----------------------------------|
| Delivery me | thod pursuant to West Virg | inia Code § 22-6 | A-16(c) | | | |
| ■ CERTI | FIED MAIL | □ на | AND | | | |
| | RN RECEIPT REQUESTED | | ELIVERY | | | |
| return receip the planned required to b drilling of a damages to the | t requested or hand delivery, operation. The notice require e provided by subsection (b), horizontal well; and (3) A p he surface affected by oil and | give the surface of red by this subse section ten of this roposed surface gas operations to | owner whose land ection shall includes a article to a surfa- use and compenses the extent the da | I will be used for de: (1) A copy ace owner whost ation agreement amages are com- | cation, an operator shall, by certified or the drilling of a horizontal well not of this code section; (2) The informable land will be used in conjunction what containing an offer of compensation pensable under article six-b of this contains the records of the sheriff at the office of Oil and | mation with the ion for hapter. |
| | reby provided to the SURFA ss listed in the records of the s | | of notice): | | FEB 09 7 | 7024 |
| Address: | | | Address | s: | W\ | |
| | | | | | Environmental = | انعلىدك |
| operation on State: County: District: Quadrangle: | | | UTM NAD 8 Public Road | l well on the tra Easting: Northing: | well operator has developed a planned act of land as follows: 545119.355 4377621.039 CR-1 Vanderbilt (Larry & Higgins) | ed |
| Pursuant to V to be provid horizontal w surface affect information headquarters gas/pages/de | ed by W. Va. Code § 22-6 A ell; and (3) A proposed surfacted by oil and gas operations related to horizontal drilling, located at 601 57 th Street, | a-10(b) to a surface use and composito the extent the may be obtained | ace owner whose ensation agreement e damages are co I from the Secret | e land will be un nt containing ar ompensable und ary, at the WV | code section; (2) The information reused in conjunction with the drilling offer of compensation for damages der article six-b of this chapter. Add Department of Environmental Proportion or by visiting www.dep.wv.gov/o | ng of a s to the litional tection |
| Telephone: | 724-746-9073 | | - Address. | Canonsburg, PA 15 | 317 | |
| Email: | jzavatchan@eqt.com | | Facsimile: | CHECK THE PROPERTY OF THE PROP | 911 | |
| | j. a. atonano equorn | | | 712-000-2014 | | |

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

Vanderbilt

Surface Owners (All Disturbance):

- Thomas A. Hixenbaugh and Karen J. Hixenbaugh P.O. Box 77 Barrackville, WV 26559
- Keith Powell 3898 Buffalo Brink Road Mannington, WV 26582
- Patricia F. Powell
 3790 Buffalo Brink Road
 Mannington, WV 26582
- Thelma Coen
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- Larry and Trisha Higgins 3418 Buffalo Brink Road Mannington, WV 26582
- EQT Production Company 400 Woodcliff Drive Canonsburg, PA 15317

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WV Department of Environmental Profession



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways Office of the District Engineer/Manager

District Four Post Office Box 4220 · Clarksburg, West Virginia 26302 · (304) 842-1500

Alanna J. Keller, P.E. Deputy Secretary of Transportation Deputy Commissioner of Highways

Jimmy Wriston, P. E. Secretary of Transportation Commissioner of Highways

January 9, 2024

James A. Martin, Chief Office of Oil and Gas Department of Environmental Protection 601 57th Street, SE Charleston, WV 25304

Subject: DOH Permit for the Vanderbilt Well Pad, Marion County Vanderbilt 6H Well Site Office of Oil and Gass
Office of Oil and Gass
FEB 09 2024

WW Department of Environmental Protection

Dear Mr. Martin.

This well site will be accessed from a DOH permit #04-2021-0331 which has been issued to EQT Production Company for access to the State Road for a well site located off Marion County Route 1 SLS MP 0.178.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated March 6, 2023. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

Stephen G. Johnson, P.E.

Director of Operations

Cc: John Zavatchan

EQT Production Company

OM, D-4 File

Anticipated Frac Additives Chemical Names and CAS Numbers

| <u>Material</u> | Ingredient | CAS Number |
|-------------------------|---|-------------------|
| Sand (Proppant) | Silica Substrate | 14808-60-7 |
| Water | Water | 7732-18-5 |
| Hydrochloric Acid (HCl) | Hydrogen Chloride | 7647-01-0 |
| Friction Reducer | Copolymer of 2-propenamide | Proprietary |
| | Petroleum Distillate | 64742-47-8 |
| | Oleic Acid Diethanolamide | 93-83-4 |
| | Alcohols, C12-16, ethoxylated | 68551-12-2 |
| | Ammonium chloride ((NH4)Cl) | 12125-02-9 |
| Biocide | Glutaraldehyde | 111-30-8 |
| | Alkyl dimethyl benzyl ammonium chloride | 68391-01-5 |
| | Didecyl dimethyl ammonium chloride | 7173-51-5 |
| | Non-hazardous substances | Proprietary |
| Scale Control | Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid)(BHMT) | 34690-00-1 |
| | Non-hazardous substances | Proprietary |
| Acid Chelating Agent | Ferriplex 66 | |
| | Citric Acid | 77-92-9 |
| | Acetic Acid | 64-19 - 7 |
| Corrosion Inhibitor | PLEXHIB 166 | |
| | Methanol | 67-56-1 |
| | Alcohols, C14-15, ethoxylated | 68951-67-7 |

Office of Oil and Toe

FEB **09** 2024

WV Department

| OPERATOR: | EQT Production Company | WELL NO: 6H |
|---------------|--|--|
| PAD NAME: | Vanderbilt | 010-11 |
| REVIEWED BY | Y: John Zavatchan | SIGNATURE: |
| | | RECEIVED Office of Oil and Gas |
| | WELL RESTRICTIO | NS CHECKLIST |
| | HORIZONTAL | 6A WELL FEB 0 9 2024 |
| | | WV Department of Environmental Protection |
| Well Restrict | tions | |
| | At Least 100 Feet from Pad and LOD (inc Perennial Stream, Lake, Pond, Reservoir | cluding any E&S Control Feature) to any or Wetland; OR |
| | DEP Waiver and Permit Condition | ns |
| | At Least 300 Feet from Pad and LOD (in Naturally Producing Trout Stream; OR | cluding any E&S Control Feature) to any |
| | DEP Waiver and Permit Condition | ns |
| | At Least 1000 Feet from Pad and LOD (i Groundwater Intake or Public Water Sup | ncluding any E&S Control Feature) to any ply; OR |
| [| DEP Waiver and Permit Conditio | ns |
| | At Least 250 Feet from an Existing Wate Drilled; OR | r Well or Developed Spring to Well Being |
| | Surface Owner Waiver and Reco | rded with County Clerk, OR |
| [| DEP Variance and Permit Condit | ions |
| <u>✓</u> 2 | At Least 625 Feet from an Occupied Dwe | elling Structure to Center of the Pad; OR |
| | Surface Owner Waiver and Recor | rded with County Clerk, OR |
| [| DEP Variance and Permit Condit | ions |
| | At Least 625 Feet from Agricultural Buil of the Pad; OR | dings Larger than 2500 Square Feet to the Center |
| :- | Surface Owner Waiver and Recor | rded with County Clerk, OR |
| | DEP Variance and Permit Condit | ions |